APPENDIX D

Tactics, Techniques, and Procedures

The purpose of this appendix is to assist field units in two problem areas: route-clearance operations and FLS seizure/clearance operations. The TTP that follow establish basic guidelines for conducting these combined arms combat operations. They are not all encompassing and may be modified to meet the needs of the user.

ROUTE-CLEARANCE OPERATIONS

MISSION

A battalion TF is to conduct clearance-in-zone operations to ensure battlefield circulation.

OVERVIEW

To clear a route, the battalion focuses one company team as the main effort on the route proposed as the MSR and the remainder of the battalion conducts clearance-in-zone operations on terrain that dominates the MSR. The brigade retains an air-assault or a mechanized company in reserve. During route-clearance operations, the TF could perform the following missions:

- Conduct a deliberate breach through a known minefield or obstacle.
- Conduct an in-stride breach through an unknown minefield.
- React to a near/far ambush.

FACTS AND ASSUMPTIONS

In a route-clearance operation, the following facts and assumptions apply:

- Noncombatants are in the area.
- Noncombatants use the MSRs.
- ROE are in effect.
- MSRs are limited and the terrain is restrictive.
- The terrain limits communication capabilities.
- Enemy teams, squads, and platoons conduct decentralized operations; they can mass to a company-level operation.
- The enemy makes extensive use of minefield, indirect fires, snipers, and shoulder fired surface-to-air missiles (SAMs).
- The enemy can infiltrate to ambush, emplace minefield, reseed cleared minefield, erect obstacles, emplace explosive devices, and conduct acts of terrorism.
- Buried point minefield can be emplaced in 1 to 1 ½ hours on an unimproved road and 2 hours on an improved road.
- Point minefield consist of 5 to 35 mines with a mix of 10 to 25 AT mines and/or 5 to 10 AP mines.

- Minefields and obstacles may be covered by direct and indirect fires.
- All obstacles are considered to be booby trapped.
- Cleared minefield can be reseeded which indicates the presence of mine caches.
- All movements are considered combat operations.
- Clearance operations are conducted during daylight hours.
- MSRs must be swept daily.
- Each convoy has a security escort that can also breach minefield, if required.
- Aviation, fire support, engineer, military intelligence (MI), military police (MP), ADA, civil affairs (CA), and psychological operations (PSYOP) assets are available.
- Light forces can clear 700 meters of a route per hour, using a minimum of four mine detectors, in a deliberate sweep operation.
- Heavy forces can clear 5 to 15 kilometers of a route per hour, using a minimum of three mine-clearing rollers.
- A reserve is available.
- US forces have air supremacy.
- Light, mobile security elements have a mix of M60 machine guns and MK19 30-millimeter grenade launchers.
- A truck platoon is available to move security forces.
- Each light infantry platoon requires three 5-ton trucks for transportation.

TF TASKS TO BE ACCOMPLISHED

The following tasks must be accomplished for route-clearance operations:

- Conduct deliberate sweep operations.
- Detect obstacles.
- Secure the area to be cleared.
- Conduct breaching and clearing operations.
- Conduct route reconnaissance.
- Conduct cordon and search operations.
- Conduct mounted-movement drills.
- Conduct road movement.
- React to enemy contact.
- Conduct a HATK.
- Deploy a reserve.
- Conduct an air-mission brief (AMB).
- Develop a fire plan / suppression of enemy air defenses (SEAD).
- Conduct emergency resupply operations.
- Conduct casualty-evacuation operations.
- Conduct vehicle recovery and evacuation operations
- Collect and disseminate intelligence information.
- Provide C2.
- React to civilians on the battlefield.
- Conduct liaison with civil authorities.
- Respond to press interviews.

RECOMMENDED TASK ORGANIZATION

Figure D-1 shows an example of the company team organization for route-clearance operations. See *Figure D-2, page D-4,* for an example of a graphic illustration of a route-clearance operation.

- **Light/Heavy Team**

  Assault Force (platoon leader/XO)
  2 Infantry platoons (light) on six 5-ton trucks

  Support Force (mechanized platoon leader)
  1 Bradley platoon
  1 Engineer squad
  1 60-millimeter mortar section
  1 Medical team (two front-line ambulances (FLAs))
  1 PSYOP team
  1 Forward observer (FO)

  Breach Force (company commander)
  1 Engineer platoon (-) with organic vehicles (HMMWVs or M113s)
  1 Infantry platoon (light) on three 5-ton trucks
  1 Tank section (two M1s with mine-clearing rollers)

- **Light Team**

  Assault Force (platoon leader/XO)
  2 Infantry platoons (light) on six 5-ton trucks

  Support Force (platoon leader)
  1 AT/MP section with M60/MK19 mix
  1 Engineer squad
  1 60-millimeter mortar section
  1 Medical team (two FLAs)
  1 PSYOP team
  1 FO

  Breach Force (company commander)
  1 Engineer platoon (-)
  1 Infantry platoon (light) on three 5-ton trucks
  1 AT/MP section with M60/MK19 mix

Figure D-1. Sample task organization for route-clearance operations

OPERATIONAL PLANNING CONSIDERATIONS

The following items should be considered by the TF when planning route-clearance operations:

Intelligence

The supporting staff conducts IPB to identify choke points, bridges, tunnels, critical road junctions, and other built-up areas. However, depending on its overall mission, the enemy may not always emplace obstacles at these locations. This is especially true if its goal is to psychologically disrupt our convoys.

- The IPB should focus on the most probable enemy attack method and point obstacle and ambush locations.
- A situation map should be maintained.
- An incident map should be maintained to facilitate a pattern analysis.
- A threat order-of-battle data base should be maintained.
- A detailed R&S plan, incorporating modern battlefield techniques to monitor the route (such as ground sensors, forward-look airborne radar, infrared radar, and satellite images), should be developed.

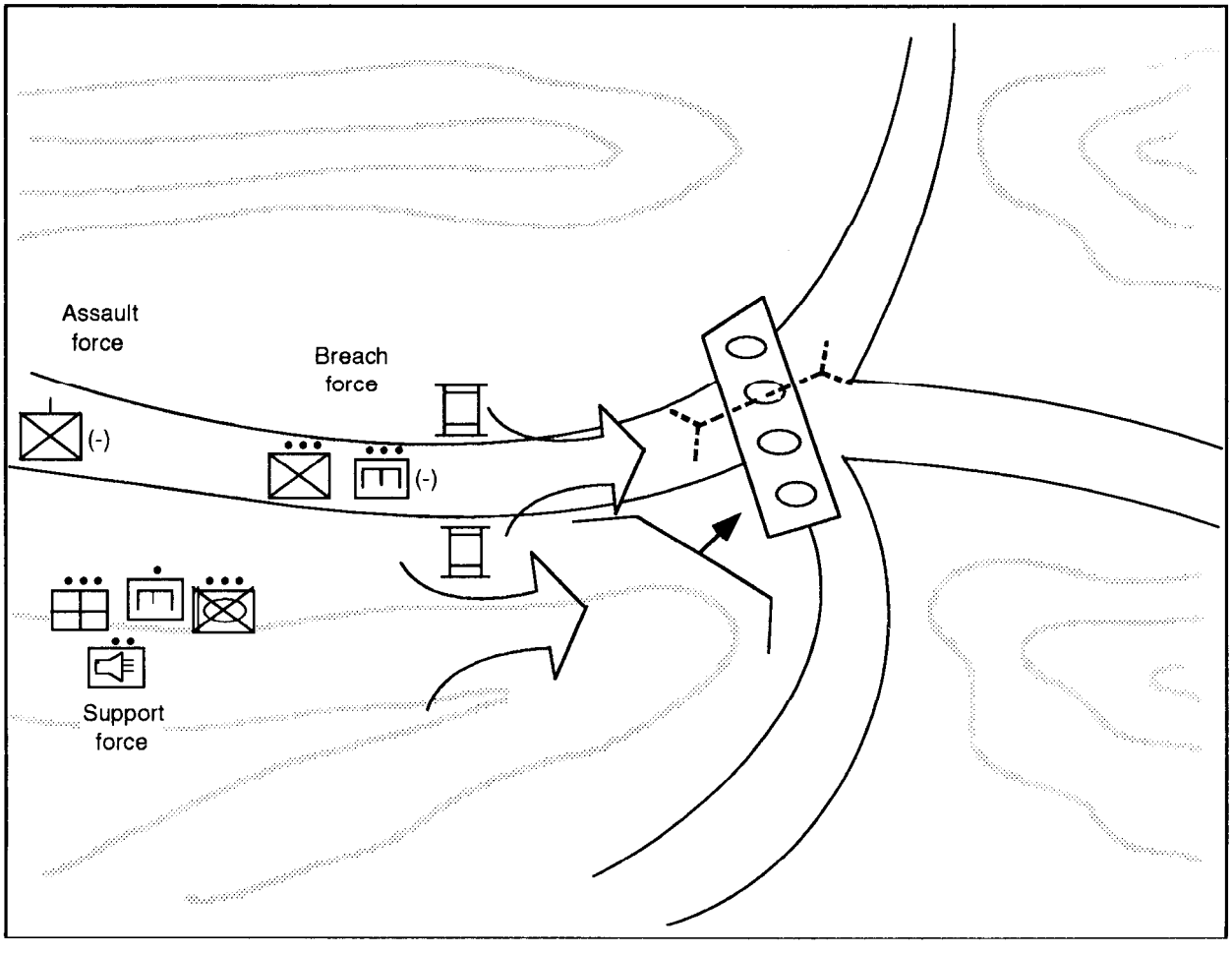

Figure D-2. Route-clearance operations

- The unit should coordinate for "quick fix" and unmanned airborne vehicle (UAV) support.
- A daily flight should be conducted over the area by AH teams to provide up-to-the-minute intelligence. Film the route using an AH-64, if possible.
- The unit should coordinate with the Air Force to check routes periodically (for example, using the C-130 Specter gunship)
- An intelligence update should be provided to company-team leaders before departure. This includes a 1:50,000 enemy situation overlay.

Maneuver

The battle drill for the company team when encountering a known or suspected minefield is as follows:

- Light/Heavy Team:
  - The support force maneuvers to a position where it can overwatch the minefield and direct effective fires on possible enemy locations.
  - The assault force dismounts and maneuvers using a covered and concealed route that avoids roads and does not mask supporting fires. The assault force may or may not be employed. If employed to seize terrain or destroy the enemy, it may or may not pass through the breach (METT-T dependent).
  - The breach force moves forward with tanks (with mine-clearing rollers) in the lead. The infantry platoon dismounts to protect the tanks and engineers. The engineer platoon conducts minefield/obstacle-clearance operations and properly marks all lanes.
  - The company commander moves with the breach force or stays with the support force and controls indirect fires into the objective area. Indirect-fire assets capable of obscuring (with smoke) and suppressing the area are ready to use based on the company commander's assessment of the situation.
  - After clearance is completed, the company commander leaves a stay-behind force from the assault force (squad- to platoon-sized) to secure the site until it is relieved by follow-on forces (such as MPs, local forces, or a reserve).
  - The company team then continues route-clearance operations.
- Light Team:
  - Route-clearance operations are the same as those conducted by the light/heavy force with the following exception:
    - Hasty-sweep operations employ engineers well forward and rely on visual indicators.
    - The breach force does not have tanks providing close-in security. It is provided by AT/MP assets armed with M60s. All other breaching procedures remain the same.
    - The support force does not have the Bradley platoon. Overwatch is provided by an AT/MP section with MK19s.

Fire Support

- Priority targets shift in conjunction with company-team movement on the MSR. Smoke is planned for each target.

- The company's 60-millimeter mortar section moves and sets up with the support force.
- Clearance of fires is the responsibility of the maneuver commander in whose sector the target is located.
- Adequate Q-36 coverage is necessary for deliberate breach operations.

Mobility/Survivability

- OBSTINTEL must include the–
  - – Description of the mines or explosive devices.
  - - Composition of the obstacle.
  - - Enemy actions or techniques used during obstacle emplacement.
- Upon visual identification of an obstacle, deliberate sweep operations should begin and continue for 200 meters past the obstacle.
- All mines, obstacles, and explosive devices must be reported, cleared, and marked to facilitate unimpeded movement.
- Lane-marking materials and techniques are standard throughout the route.
- All radios, electronic equipment, and aviation assets must maintain a safe distance during breaching operations.

AD Artillery

- Despite air supremacy, the possibility of air attack should be considered.
- The following passive AD measures should be used:
  - - Eliminate glare by using mud, tape, cardboard, or camouflage nets to cover headlights, mirrors, and portions of windshields.
  - - Try to reduce dust clouds (reduce speed to reduce dust).
  - - Use routes that offer natural concealment.
  - - Use air guards.

Combat Service Support

- Clearance operations are supported with a logistical/medical package operation out of the BSA.
- The priority evacuation method is by air; the routine method is by ground.
- An AMB should be conducted with aviation assets for MEDEVAC contingencies (rehearse evacuation request procedures).
- A medical team traveling with the company team should consist of one to two FLAs.
- All personnel wear flak vests.
- All vehicles carrying troops require hardening (sandbagging floors and sides).

Command and Control

- The company team commander has a requirement to operate on three separate frequencies: battalion command network, company team command network, and fire support network.
- Minefield indicators should be designated throughout the TF (see *Figure D-3* for a list of indicators).
- The battalion designates a reserve that is at least platoon-sized and is either mechanized or air-assault capable.

When conducting deliberate sweep (mine detector and visual observation) or hasty sweep operations, the presence of the following indicators may warn individuals of buried mines or hidden booby traps:

- Damaged vehicles.
- Dead animals.
- Avoidance by local population.
- Signs of digging.
- Signs of concrete removal.
- Holes or grooves in the road.
- Boxes or parcels placed along the road or shoulder.
- Parked vehicles and bicycles without operators.
- Wires on the road surface or extending to the shoulder.
- Metallic devices on the roadway surface.
- Evidence of mine-peculiar supplies (such as wrenches, shipping plugs, wrapping paper, and safety collars from fuses).
- Disturbances in previous tire tracks.
- Disturbance of road potholes or puddles.
- Differences in amount of moisture or dew on road surface.
- Differences in plant growth (such as wilting, changing colors, or dead foliage).
- Signs posted on trees that covertly alert the local populace to the presence of mines.

Figure D-3. Minefield indicators

- Rehearsals should include:
  - Actions on the objective/obstacle.
  - Reaction to enemy contact.
  - Reaction to a near/far ambush.
  - Communications exercise (COMEX).
  - Fire support.

Special Operations

- PSYOP teams should be employed forward to assist in dispersing civilians that could block the route.
- PSYOP/CA support the counterintelligence (CI) in conducting civilian interviews.
- Civilians should be directed along the MSR to the displaced-personnel holding areas and the routes that the brigade has indicated for use.

REFERENCES

The manuals listed in *Figure D-4, page D-8,* provide additional information on route-clearance operations.

FM 5-114. *Engineer Operations Short of War.* 13 July 1992.

FM 19-1. *Military Police Support For AirLand Battle.* 23 May 1988.

FM 19-4. *Military Police Battlefield Circulation Control, Area Security, and Enemy Prisoner of War Operations.* 7 May 93.

FM 20-32. *Mine/Countermine Operations.* 30 September 1992.

FM 33-1. *Psychological Operations.* 18 February 1993.

FM 34-130. *Intelligence Preparation of the Battlefield.* 23 May 1989.

FM 41-10. *Civil Affairs Operations.* 11 January 1993.

FM 63-6. *Combat Service Support in Low-Intensity Conflict.* 21 January 1993.

FM 90-13-1. *Combined Arms Breaching Operations.* 28 February 1991 (Change 1, May 1993).

Mine Recognition and Warfare Handbook. November 1990.

Figure D-4. References for route-clearance operations

FLS SEIZURE/CLEARANCE OPERATIONS

MISSION

A battalion TF is to seize and clear a FLS in a forced-entry operation so follow-on air-land forces can develop LOC.

OVERVIEW

To clear the FLS, the battalion focuses one company team as the main effort on the FLS. The remainder of the battalion conducts clearance-in-zone operations, securing intermediate objectives on terrain that dominates or overmatches the FLS. During clearance operations, the TF finds that the FLS is in one of the following conditions:

- Destroyed beyond repair.
- Minimally damaged, requiring only small repairs.
- Cleared of all obstructions.

FACTS AND ASSUMPTIONS

In this situation, the following facts and assumptions apply:

- Noncombatants are in the area.
- Noncombatants stay near airfield control facilities.
- ROE are in effect.
- FLS is capable of landing C- 130 aircraft.

- FLS was used in the last 30 days or less by some sizable aircraft.
- Enemy activity in the area is minimal.
- Enemy teams, squads, and platoons conduct decentralized operations in the area; they can mass to a company-level operation within 24 hours.
- Enemy makes extensive use of ADA assets, minefield, indirect fires, and snipers in controlling the airfield.
- Clearance operations are conducted during limited visibility or at night.
- US forces have air supremacy.
- Air Force, aviation, fire support, engineer, MI, MP, ADA, CA, and PSYOP assets are available; however, they require task organization for this operation.

TF TASKS TO BE ACCOMPLISHED

The following tasks must be accomplished for FLS seizure/clearance operations:

- Conduct forced-entry operations.
- Secure DZ/LZ.
- Establish LAPES zones.
- Conduct cordon-and-search operations.
- Develop a fire plan/SEAD.
- Conduct a HATK.
- Secure intermediate objectives around the airhead.
- Conduct initial reconnaissance of the FLS.
- Conduct deliberate sweep operations.
- Detect obstacles (such as mines, craters, wire, and abandoned vehicles).
- Conduct breaching/clearing operations on the FLS.
- Remove vehicles and equipment from the FLS.
- Repair damage to the FLS or turnaround apron.
- Conduct liaison linkup with the Air Force CCTs.
- React to civilians on the battlefield.
- Conduct casualty-evacuation operations.

RECOMMENDED TASK ORGANIZATION

Figure D-5, page D-10, shows an example of how a battalion TF could be task-organized.

See Figure D-6, page D-11, for an example of a graphic representation of the FLS seizure/clearance operation.

OPERATIONAL PLANNING CONSIDERATIONS

The following should be considered by the TF when planning a FLS seizure:

Intelligence

- The IPB should focus on the enemy's most probable COA in the immediate area around the FLS/DZ.
- The case study provides intelligence on the FLS and surrounding terrain, to include borrow pit sites.
- Aerial imagery, photographs, and daily flights over the area should be coordinated.
- Updated intelligence in the area can be obtained through coordination with human intelligence (HUMINT) and SOF elements.

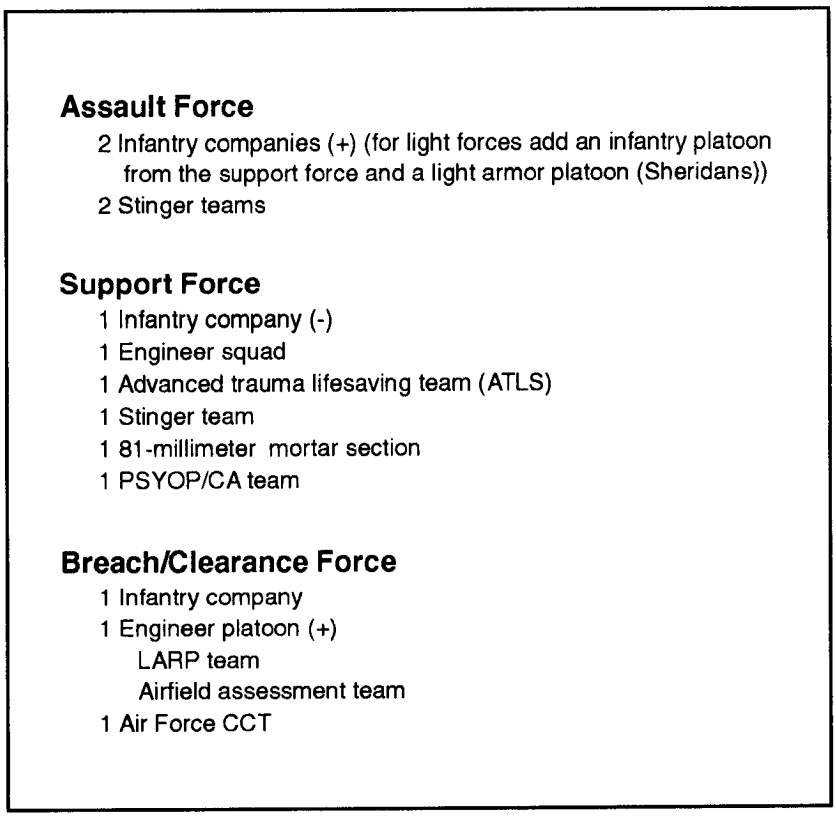

Figure D-5. Sample task organization for FLS seizure/clearance operations

- Threat order-of-battle data base, to include typical obstacle materials on or around the FLS, should be maintained.
- A situation map with incidents in the area should be maintained to facilitate a pattern analysis.
- Intelligence updates should be provided to all TF leaders before forced-entry operations, to include 1:50,000 enemy situation overlay (situation template).

Maneuver

- The entire battalion TF conducts forced-entry operations by either a parachute or an air assault.
- The assault force conducts cordon-and-search operations, securing intermediate objectives that support or overwatch breach-force operations to eliminate long-range direct fires and observed indirect fires.
- The lead elements of the breach/clearance force initially conduct a hasty reconnaissance of the FLS to secure it, removing direct fires. Then the engineer platoon (-) conducts a deliberate sweep with the security provided by an infantry company.
- The support force is the reserve and provides security for the TF C2 elements and the brigade tactical CP. This force has the redundancy to breach/clear the FLS or to secure intermediate objectives, if required.

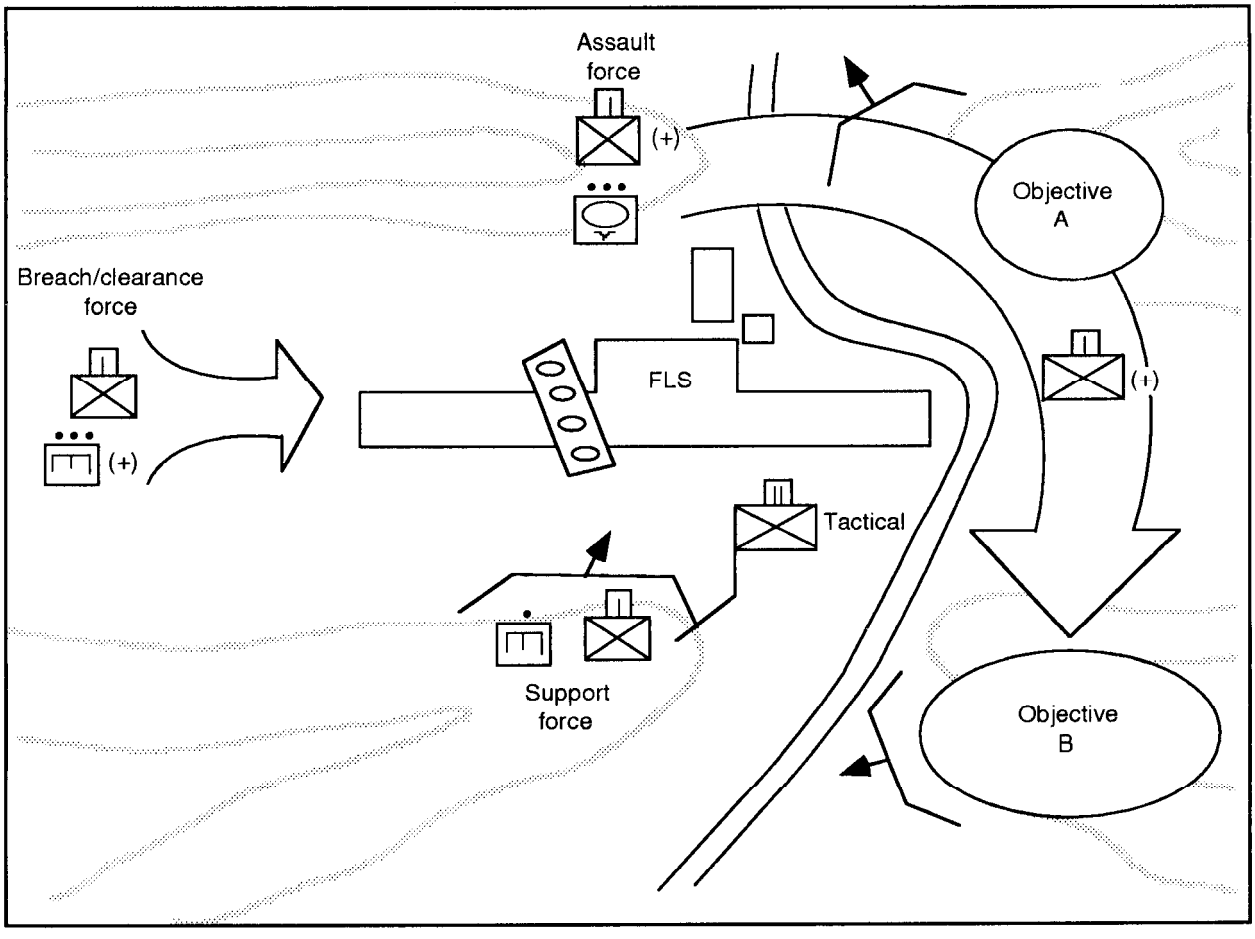

Figure D-6. FLS seizure/clearance operations

- In order to build up combat power in the AO, the critical mission for the battalion TF is to clear and maintain the FLS.
- Marking the FLS is according to the division TSOP and is coordinated with the Air Force CCTs. This should be covered in detail in coordinating instructions of the OPORD.

Fire Support

- Priority of fires will be with the assault force.
- Special consideration must be taken when planning the SEAD so the FLS is not damaged by friendly fires. To accomplish this, it may be necessary to place no-fire zones on the actual FLS.
- The company's 60-millimeter mortar section moves with their organic company, and the battalion's 81-millimeter mortar section sets up with the support force.
- The TF commander is responsible for clearing fire in the AO.

Mobility/Survivability

- OBSTINTEL should be developed early during the IPB. It must include the–

- Description of mines or explosive devices.
- Composition of obstacles (craters, ditches, or wire).
- Actions or techniques used by the enemy during emplacement.

- Initial reconnaissance elements should mark and report any obstacles encountered on or around the FLS. The CCT normally has this completed early.
- The priority of engineer effort should be directed toward opening a FLS long enough to land a C-130 (a minimum of 2,500 feet). Then they should clear the taxiways and turnaround apron.
- The engineer platoon masses to conduct a deliberate sweep of the FLS to ensure that all obstacles are identified and removed.
- The engineer platoon should organize the sweep teams similar to those in *Figure D-7*.
- The engineer platoon can clear a path 8 meters wide and 700 meters long in an hour, using a minimum of four mine detectors (see *Figure D-7a).* If the platoon is task-organized with four additional mine detectors, it can clear a path 16 meters wide and 700 meters long in an hour (see *Figure D- 7b).* This assists the sweep team by reducing the initial runway sweep to one deliberate pass.
- The mines that are identified are exploded in place, if possible.
- The LARP team moves behind the sweep team on the cleared FLS to repair any craters or holes in the FLS.
- The LARP team removes parked vehicles from the FLS by either "hot wiring" them or pushing them off with heavy equipment.
- The airfield assessment team assesses the FLS with the Air Force CCT during clearance operations to certify that the FLS is serviceable before any type of aircraft lands.
- The airfield assessment team continues to assess the FLS once the airfield is open to aircraft to determine the number of C- 130s that can land on the FLS before it needs maintenance.
- The engineers continue to sweep the turnaround apron area once the FLS is cleared. When the airfield sweep is complete, they sweep the proposed LOC.

AD Artillery

- Despite air supremacy, the possibility of air attack should be considered.

Combat Service Support

- No resupply is conducted until the FLS is clear.
- MEDEVAC is by air, once the FLS is clear. The ATLS team collocates with the support force and treats casualties until the FLS is opened.
- Fuel supplies could become critical if major repairs are needed on the FLS.

Command and Control

- The TF maintains a company-team reserve that is located with the support force.
- The engineers with the breach/clearance force report through the company team and back to the battalion the area and distance they have cleared.

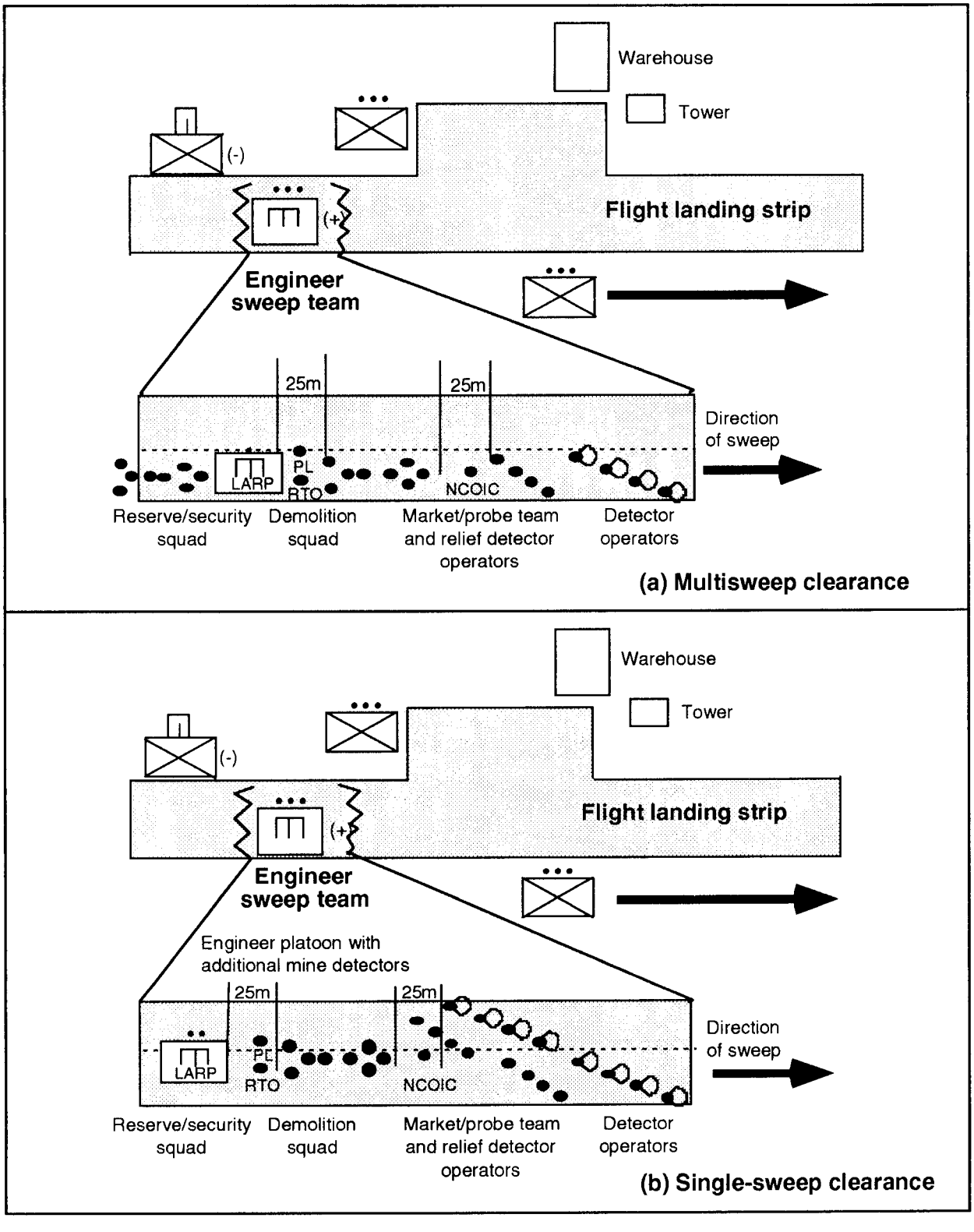

Figure D-7. FLS clearance-team operations

- FLS marking techniques need to be disseminated throughout the TF.
- Combined arms rehearsals should include–
  - Actions on the objective / obstacles.
  - Reaction to contact.
  - Reaction to near / far ambush.
  - Deliberate sweep operations.
  - COMEX.
  - Linkup with Air Force CCT.
  - Fire support.

Special Operations

- Intelligence updates should be obtained from SOF units in theater before conducting forced-entry operations.
- A PSYOP team should be employed to control and disperse civilians who could hinder FLS seizure / clearance operations.
- Holding areas should be established to control dislocated civilians.

REFERENCES

The FMs listed in *Figure D-8* provide additional information on FLS seizure / clearance operations.

FM 5-114. *Engineer Operations Short of War.* 13 July 1992.

FM 20-32. *Mine/Countermine Operations.* 30 September 1992.

FM 71-100-2. *Infantry Division Operations Tactics, Techniques, and Procedures.* 31 August 1993.

FM 90-4. *Air Assault Operations.* 16 March 1987.

FM 90-10-1. An *Infantryman's Guide to Combat in Built-Up Areas.* 12 May 1993.

FM 90-13-1. *Combined Arms Breaching Operations.* 28 February 1991 (Change 1, May 1993).

FM 90-26. *Airborne Operations.* 18 December 1990.

Figure D-8. References for FLS seizure/clearance operations